

What is claimed is:

1. A positioning device for an ablation tool comprising:
 - an elongated flexible tube;
 - a sheath removably surrounding said flexible tube;
 - a guide wire insertable through said flexible tube;
 - a distal end of said flexible tube having a curved shape when said distal end is unconstrained by said sheath; and
 - a plurality of radiographic markers disposed along said curved shape of said distal end and along a length of said flexible sheath proximal to said curved shape.
2. A positioning device according to claim 1, further comprising an inflatable member disposed at least partially on said curved shape of said distal end of said flexible tube.
3. A positioning device according to claim 2, said inflatable member sized and shaped to secure said flexible tube at a target location upon inflation of said flexible tube.
4. A positioning device according to claim 1, further comprising a tension wire extending internal to said elongated flexible tube and exiting said elongated tube at a location proximal to said curved shape of said distal end; an end of said tension wire being connected to a distal tip portion of said curved shape; said curved shape being expandable against a target site upon tensioning of said tension wire.
5. A positioning device according to claim 1, further comprising a plurality of anchoring pins disposed on at least a portion of the periphery of said curved shape of said distal end of said flexible tube.
6. A positioning device for an ablation tool comprising:
 - an elongated flexible tube;
 - a sheath movably surrounding at least a portion of said elongated flexible tube;
 - said elongated flexible tube having an elongated distal end;

said elongated distal end being sized and shaped to frictionally engage a target vessel in a human patient and thereby hold said elongated flexible tube in place; and

said elongated tube having a plurality of radiographic markers proximal to said elongated distal end of said elongated flexible tube.

7. A positioning device according to claim 6, wherein said elongated flexible tube includes a contrast lumen, said lumen terminating at a hole located proximal said elongated distal end.

8. A positioning device according to claim 6, further comprising an inflatable member disposed on a tip portion of said elongated distal end of said elongated flexible tube; said inflatable member being sized and shaped to engage the walls of a target vessel upon inflation of said inflatable member.

9. A positioning device for an ablation tool comprising:

an elongated flexible tube;

a sheath removably surrounding at least a portion of said elongated flexible tube;

and

said elongated flexible tube having an axially movable distal tip connected to said elongated flexible tube with an expandable anchoring cage such that movement of said distal tip in a direction toward said elongated flexible tube causes expansion of said anchoring cage against a target vessel wall.

10. A positioning device according to claim 9, wherein said anchoring cage comprises a plurality of outwardly deformable strips extending from said movable distal tip to said elongated flexible tube.

11. A positioning device according to claim 9, wherein said anchoring cage comprises an outwardly deformable mesh extending from said movable distal tip to said elongated flexible tube.

12. A positioning device according to claim 9, further comprising an ablation device interposed between said elongated flexible tube and said sheath and movable with respect to both said flexible tube and said sheath, said ablation device including an ablation arm extendable from said sheath.

13. A positioning device according to claim 12, wherein said ablation arm has a preset curved shape such that a tip of said arm is normally curved in a direction radially away from said deformable mesh.

14. A positioning device according to claim 13, wherein said deformable sheath is sized and shaped to further direct said tip of said arm radially away from said deformable sheath when said tip of said arm is placed proximally to said deformable sheath.

15. A positioning device according to claim 13, wherein said arm has a normal curve such that said tip of said arm is positioned radially further away from said deformable sheath in direct relationship to movement of said sheath away from said tip of said arm.

16. A positioning device for an ablation tool comprising:

an elongated tubular body;

a sheath movably mounted around said elongated tubular body;

a plurality of expandable arms disposed at a distal portion of said elongated body;
and

said expandable arms being biased to expand upon movement of said sheath so as to expose said expandable arms from said sheath.

17. A positioning device according to claim 16, wherein said movement is in a direction away from a proximal end of said elongated body.

18. A positioning device according to claim 16, wherein said movement is in a direction towards a proximal end of said elongated body.

19. A positioning device according to claim 16, wherein said expandable arms have an expanded dimension that is greater than an inner diameter of a target vessel in a human.
20. A positioning device according to claim 16, wherein each of said expandable arms has a tip portion, said tip portion having a tissue anchoring mechanism to secure said expandable arms at a location outside an inner diameter of a target vessel in a human.
21. A positioning device according to claim 16, wherein said expandable arms are substantially straight in shape.
22. A positioning device according to claim 16, wherein said expandable arms are substantially backwardly angled in shape.
23. A positioning device according to claim 16, wherein each of said expandable arms includes a tip portion that has a tissue anchoring mechanism removably attached thereto; each of said tissue anchoring mechanisms having a retention structure to receive and hold a tether.
24. A positioning device for an ablation tool comprising:
- a flexible elongated tube;
 - a sheath movable back and forth along said elongated tube;
 - at least two expandable electrode arms;
 - a flexible conforming strip extending between said at least two expandable electrode arms;
 - said flexible conforming strip having sufficient flexibility so as to substantially readily conform to the shape of a target ablation site upon contact of said conforming strip with said target ablation site; and
 - an ablation mechanism included on said conforming strip.
25. A positioning device according to claim 24, wherein said flexible conforming strip comprises a conforming electrode strip.

26. A positioning device according to claim 24, wherein a plurality of ablation electrode needles are disposed on said conforming strip.
27. A positioning device according to claim 24, wherein a plurality of bi-polar ablation electrode needles are disposed on said conforming strip.
28. A positioning device according to claim 24, wherein each of said at least two expandable arms include a distal tip, wherein a tissue fixation needle is disposed on said distal tip of at least one of said expandable arms.
29. A positioning device according to claim 28, wherein a tissue fixation needle is disposed said distal tip of each of said expandable arms.
30. A positioning device according to claim 24, wherein one anchoring needle is disposed on said flexible conforming strip.
31. A positioning device for an ablation tool comprising:
a elongated flexible tubular member;
a sheath movable back and forth along said flexible tubular member; and
a tissue anchoring needle extending axially from a tip of said flexible tubular member.
32. A positioning device according to claim 31, wherein said tissue anchoring needle includes a needle having a deformable pre-set curve, said needle attaining said pre-set curve upon movement of said sheath back from said flexible tubular member.
33. A positioning device according to claim 31, wherein said tissue anchoring needle includes a distal tip separated from a proximal end of said needle with an outwardly extendable retention structure.
34. A positioning device according to claim 31, wherein said tissue anchoring needle includes a needle having a corkscrew shape.

35. A positioning device according to claim 31, wherein said tissue anchoring needle includes radially expandable barbs on said tissue anchoring needle body; said barbs being expanded outwardly upon movement of said sheath back along said flexible tubular member.

36. A positioning device according to claim 35, said barbs being expanded outwardly according to the movement of said sheath in a direction forward along said flexible tubular member.